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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,855	06/14/2006	Daisuke Kawasaki	8017-1193	6622
<div>466 7590 01/07/2011</div> <div>YOUNG &amp; THOMPSON 209 Madison Street Suite 500 Alexandria, VA 22314</div>				
<div>EXAMINER</div> <div>ANTHONY, JULIAN</div>				
<div>ART UNIT PAPER NUMBER</div> <div>1726</div>				
<div>NOTIFICATION DATE DELIVERY MODE</div> <div>01/07/2011 ELECTRONIC</div>				

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DocketingDept@young-thompson.com

### Office Action Summary

**Application No.**

10/582,855

**Applicant(s)**

KAWASAKI ET AL.

**Examiner**

JULIAN MERCADO

**Art Unit**

1726

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 and 13-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-912)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

## **DETAILED ACTION**

### **Continued Examination Under 37 CFR 1.114**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 15, 2010 has been entered.

Claims 1-11 and 13-20 are pending.

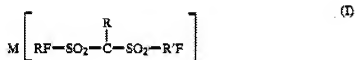
### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

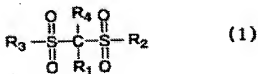
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9, 15-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (2002/0037458) in view of Armand (U.S. Pat. 4,818,644).

This rejection is maintained for the reasons of record. As discussed in a prior Office action, electrolyte solution disclosed by Armand is a compound represented by the following structure:



which is notably the same chain disulfonate as recited in the claimed general formula (1):



The examiner notes the amendment to the present claims now reciting the general formula (1) as being contained in the electrolyte solution. In Armand, the general formula (1) is specifically disclosed as being "placed in solution in an aprotic polar liquid solvent...." The amendment further recites the general formula (1) as being in an amount of 0.1 to 5.0% by weight. While Armand does not explicitly teach the weight % of its chain disulfonate, it is asserted that optimization of weight percentages within the prior art conditions through routine experimentation is within the purview of the skilled artisan, absent of a showing of evidence or unexpected results indicating that the claimed weight percentage amounts is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Applicant's arguments filed with the present amendment have been fully considered, however they are not found persuasive. Applicant submits that when the weight of general formula (1) is 0.1 to 5.0 weight %, the secondary battery has a high capacity maintenance rate which is allegedly unexpected over the prior art. Applicant then references paragraph [0078] and Examples 26-33 of the specification. In reply, applicant's general allegation of an unexpected

"high capacity maintenance rate" is unpersuasive, as the Comparative Examples 1, 2, 3 and 4 in Table 1 and Table 2 all have "None" for the % by weight of additives in electrolyte solution, such as general formula (1). Thus, applicant's general allegation of unexpected results premised on the claimed 0.1 to 5.0 weight % for general formula (1), which is otherwise taught by the prior art, cannot be ascertained on its merits.

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (2002/0037458) in view of Armand (U.S. Pat. 4,818,644) and further in view of Fleischer et al. (U.S. Pat. 6,225,009).

Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (2002/0037458) in view of Armand (U.S. Pat. 4,818,644) and further in view of Utsugi et al. (2004/0043300).

This rejection is maintained for the reasons of record. The examiner notes that no salient arguments are presented therefor.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (2002/0037458) in view of Armand (U.S. Pat. 4,818,644) and further in view of Shiota (U.S. Pat. 5,795,674).

This rejection is maintained for the reasons of record. The examiner notes that no salient arguments are presented therefor.

### **Double Patenting**

Claims 1-9, 15-18 and 20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 13 of copending Application No. 10/541,063 (the '063 application) in view of Yamaguchi et al.

Claims 10 and 11 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 13 of the '063 application in view of Yamaguchi et al. and Fleischer et al.

Claims 13 and 14 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 13 of the '063 application in view of Yamaguchi et al. and Utsugi et al.

Claim 19 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 13 of the '063 application in view of Yamaguchi et al. and Shiota.

This is a provisional obviousness-type double patenting rejection. Any differences between the '063 application and the instant application is deemed non-obvious in view of the teachings of Yamaguchi et al., Fleischer et al., Utsugui et al. and Shiota et al. as applied in this Office action. It is noted that both the '063 application and the instant application both recite the same chain disulfonate as recited in the claimed general formula (1).

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection

is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

In maintaining this ground of rejection, the examiner notes that applicant has requested the double patenting rejection be forestalled until the copending application issues as a patent. In reply, the examiner notes that the present rejection is a provisional obviousness-type double patenting rejection.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

/Julian Mercado/  
Examiner, Art Unit 1726

/Patrick Joseph Ryan/  
Supervisory Patent Examiner, Art Unit 1726